

REMARKS

Claims 1-17 are pending in the application. Claims 3, 9 and 11 and 15 have been cancelled. Entry and reconsideration of the amended claims is respectfully requested.

Rejection under 35 USC 103

The claims stand rejected under 35 USC 103(a) over WO'502 in view of Suzuki (U.S. '113). This rejection is respectfully traversed.

As to the applicability of the primary reference, the Examiner has notably agreed that "WO '502 does not expressly teach that the centrifugal atomization process is carried out in an atmosphere with a relatively low (i.e., <4vol%) oxygen content...." (page 3 first para of the Office action). To cure this deficiency of the primary reference (WO '502), the Examiner then relies upon secondary reference, Suzuki (U.S. '113), asserting that Suzuki is directed to a process for producing spherical metal particles and the process involves centrifugally atomizing molten metal in an atmosphere containing 3-600 ppm oxygen. Therefore, the Examiner surmises that the invention as a whole would have been obvious to one of ordinary skill in the art because the disclosure of Suzuki would motivate the artisan to conduct the centrifugal atomization of WO '502 in an atmosphere containing a relatively low (i.e., 3-600 ppm) amount of oxygen.

The Examiner further notes that although the part per million unit of Suzuki is determined on a mass basis, "this is still believed to render obvious the claimed volume percentage of oxygen content... (emphasis added)".

These assertions of the Examiner are respectfully traversed.

In order to clarify this issue, the Applicant has calculated how much volume % 600 ppm of oxygen (in weight) would amount to, particularly in light of Suzuki, in col. 2, l. 29-31, states that the oxygen is to be mixed with nitrogen (or an air-nitrogen mixture to obtain the correct oxygen level). When calculated on Suzuki's stated basis, It turns out that the maximum of 600 ppm would amount to 0.0599 molar% = 0.0599 vol% of oxygen. Clearly, therefore, the claimed limitation of 0.2 to 4% in the instant application is entirely outside the oxygen content disclosed by Suzuki and does not render the claimed limitation obvious in view thereof.

Furthermore, a comparative study was conducted to determine the 'aspect ratio' of Zn alloy powders in an oxygen free and in a 0.25 % oxygen. The results presented in a Declaration including actual photographs submitted herewith and made a part hereof, clearly indicate that Zn alloy powders made by centrifugal atomization in a protective atmosphere do not present a spherical or close to spherical shape when the oxygen content exceeds 0.2% (compare with Suzuki's actual volume % of 0.0599, *vide supra*). In light of such results Suzuki is clearly inapplicable to the claimed oxygen content of the present invention and the primary reference of WO '502, of course, does not teach that the centrifugal atomization process is carried out in an atmosphere with a low oxygen content.

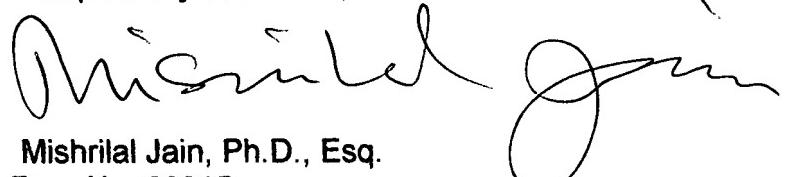
Since the primary reference does not relate to atomization in a low oxygen content, and the secondary reference employs a nitrogen-oxygen mixture (and even so, the oxygen content is 0.0599%), clearly there is no suggestion or teaching in any of the cited references to make obvious what the limitation in the present invention of 0.2-4% oxygen content claims for centrifugal atomization of zinc alloy powders.

Based on the above, it is believed that the outstanding rejection under 35 USC 103(a) over WO'502 in view of Suzuki (U.S. '113) is inapplicable and this rejection should be withdrawn.

The claims are now believed to be in condition for allowance and favorable action accordingly is earnestly solicited.

Should there remain any outstanding issues, a telephone call from the Examiner to discuss the same toward furthering the application for allowance is respectfully requested.

Respectfully submitted,



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Encls: Declaration (2 Pages)
Nr 7 (3 Photographs)
Nr 15 (3 Photographs)